Title of workshop: Strategies to control foodborne pathogens: focus on *Campylobacter* in broilers
Topic: Safety and Microbial Quality of Foods

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Intended audience: researchers, doctoral and post-doctoral researchers, food manufacturers, ferments producers, agri cooperatives, etc.

Summary:
As reported by the European Food Safety Authority (EFSA), *Campylobacter* continued to be the most commonly reported gastrointestinal bacterial pathogen in humans in the European Union (EU) since 2005. The disease is characterized by watery or bloody diarrhea, abdominal cramps and nausea (Blaser et al., 2008). Post-infection complications include peripheral neuropathies, Guillain-Barré syndrome, and functional bowel diseases (Moore et al., 2005). Numerous studies have already emphasized the importance of poultry as a reservoir and source of *Campylobacter* (Hermans et al., 2012; Sasaki et al., 2013) and broiler meat is considered the main foodborne source of *Campylobacter* human infection (EFSA 2015; Nadeau et al., 2003; Nielsen et al., 2006; Silva et al., 2011).
In Europe, the mean prevalence of *Campylobacter* in primary poultry production is very high, up to 70% of broiler batches being contaminated (EFSA 2010). Moreover, the prevalence of *Campylobacter* on broiler carcasses is much higher at the slaughterhouse due to cross contamination between infected and non-infected birds, standing at about 75%. A quantitative microbiological risk assessment of campylobacteriosis in Europe demonstrated that controlling *Campylobacter* in broiler flocks could be highly beneficial to public health because of its impact all along the broiler food chain (slaughter, retail sales and consumption) (Romero-Barrios et al., 2013). Treatments of meat on an industrial scale could even eliminate human campylobacteriosis. However, several of these processes could impact meat quality (Meunier et al., 2015). The current proposal will point out the epidemiology of *Campylobacter* in the broiler chain and highlight few strategies experimented to reduce *Campylobacter* prevalence in primary poultry production, and so prevalence of human campylobacteriosis. Three talks are proposed and will be presented by the French Agency for Food, Environmental and Occupational Health & Safety (ANSES), a private research center (IMASDE AGROALIMENTARIA), and a public research unit (INRA, UMR 1014 Secalim).
This proposal will combine an update of state-of-the-art of current knowledges of the subject and newest findings in this topic. Moreover, it will address the following program areas: (i) the safety and microbial quality of foods (especially poultry meat), and (ii) the general-food protection for the future (notably some methods to fight foodborne pathogens).
The program will be as follows:

1- Epidemiology of *Campylobacter* in the broiler production chain in France (25 min + 5 min discussion)

2- An update state-of-the-art about the different methods to control *Campylobacter* in broilers: the European project CAMPYBRO (25 min + 5 min discussion)

3- Use of potential probiotic strains to reduce *Campylobacter jejuni* in broilers: recent developments using *Lactobacillus salivarius* SMXD51 (25 min + 5 min discussion)

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